

other or contact with the core in accordance with the rotation deformation of the rotor core, only a part of the magnetic coating is peeled and separates. Accordingly, the actual air gap can be set smaller.

Page 6, lines 7-26, delete current paragraph and insert therefor:

In this rotor used as a brushless generator, the claw portions are easily deformed due to centrifugal force during rotation. Therefore, it is necessary to set the air gap larger than that of a rotary electric machine having brushes. However, similar to the rotary electric machine having the Roundel-type core, the magnetic coating is formed on the surface of the core defining the air gap. Therefore, in case the magnetic member contacts other magnetic members or the core in accordance with the rotation deformation of the rotor core, only part of the magnetic coating peels and physically separates. Thus, the actual air gap can be set small.

The binding material is designed to be lubricious. Since the magnetic coating is made of a lubricated material such as grease and fills the air gap, the air gap can be substantially decreased to zero. That is, the air gap is at least minimized. Further, in the case where the rotor contacts the opposite stator core, because the magnetic coating is lubricious the possibility of problems such as noise or baking is likely to be decreased. Therefore, the distance between the rotor core and the opposing stator core is shortened.

Page 10, lines 12-20, delete current paragraph and insert therefor:

In the present embodiment, the magnetic coating is applied on the surfaces of each member defining the above air gaps 18, 19, 20 and 21. The tensile strength of the magnetic coating on a particle is designed to be lower than that of the bonding strength of the coating on a surface of a coated member, such as the stator and/or rotor. Therefore, in the event that part of the magnetic coating on a particle is damaged by an external force, such as a contact force, the mode of breakage is not likely to be a boundary peeling on the surface of the

member where the magnetic coating is applied, but breaking of the coating material on the particle results.

Page 12, line 21- page 13, line 4, delete current paragraph and insert therefor:

FIG. 2 is a cross-sectional view of an alternator for a vehicle which has a rotor including a Roundel-type core. The rotor 110 has a pair of rotor cores each of which includes claw pieces 100 producing N/S poles and a boss portion 102 having the rotor windings therearound. In this structure, two air gaps are formed on a main magnetic flux route generated by the field winding. One air gap is defined between the claw pieces 100 and an inner peripheral surface of the stator 120, and the other air gap is defined between opposing surfaces of the pair of boss portions 102. Therefore, the magnetic coating may be applied to the members which face the above air gaps.

IN THE CLAIMS:

Please replace claims 1, 2 and 13-17 as follows:

1. (Amended) A rotary electric machine, comprising:

a rotor including a rotor core that alternately generates north and south poles in a circumferential direction and a field winding wound around the rotor core;

a stator including a stator core arranged opposite to the rotor core and a stator coil wound around the stator core; and

a frame supporting the rotor and the stator, wherein a magnetic coating made of magnetic particles and binding material binding the magnetic particles is formed on at least one of opposite surfaces of the stator and the rotor and a tensile strength of the magnetic coating is set smaller than a bonding strength between the magnetic coating and a surface where the magnetic coating is formed.